shown in a different color, such as purple, that would make it easy to see the patient state relative to the normal. As noted, to the left of the septum 34 is an another elongated, rectangular shaded box 38 and this represents a normal right ventricle. The RV and LV can be represented as being of normal, increased or decreased compliance.

[0084] Below LV 12 and extending from the ~~Extendedheart~~ extended heart object 4 is an example of stenosis of the aortic valve 44. The one arrow extending from the aortic valve 44 shows obstructed blood flow. Separating the aortic valve 44 and the LV 12 are two, side-by-side, bolded, horizontally oriented rectangles 46A and 46B which represent a thickened aortic valve. Thickening of any valve would be shown in the same manner. The ~~Extendedheart~~ extended heart object 4 of the present invention mimics the human heart and displays information in an intuitive manner to physicians or other medical personnel allowing for the display of a large quantity of information in a simplified manner.

[0085] Referring now to Figure 3, the process of updating the ~~Extendedheart~~ extended heart object begins when a start signal is transmitted by the user at start state 5. The start signal can be a keystroke or a mouse command that initiates the software to begin collecting data. After receiving the start command at state 5, the process moves to a state 7 where the stroke volume ("SV") is read. The stroke volume can be read from a table or a buffer in the computer system. After the SV is read, the process moves to a state 9 where the heart rate ("HR") is read.

[0099] An alternative embodiment of the vascular circuit is shown in Figure 5. In this embodiment, the ~~Extendedheart~~ extended heart object is omitted. In its place is an abbreviated heart object showing only the right ventricle ("RV") object 86. Blood flow is indicated by an arrow between the cell/tissue object 84 and RV object 86. In this embodiment, the chambers of the heart are split with the LV 96 downstream. Blood flow leaves RV 86 and enters into a pulmonary vascular resistor object 88 which functions in the same manner as vascular resistor object 58 of Figure 4. Vascular resistor object 88 is used to display the blood flow equivalent to Ohm's law and the data is visually displayed in the form of object 58 as a "pipe" shaped object wherein blood flow is from right to left. The area inside the pipe can be darkened to represent the